GEOGRAPHIC NEWS BULLETINS

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© *Relang from Three Lions*

CROATIA IS THE SCENE OF SOLEMN ROUND DANCES AND REVOLVING CYCLES OF HISTORY

In boots and aprons and costumes that change so slowly as to seem unchanging, after church on Sunday Croatian women join the rhythmic dance in a large circle known throughout Yugoslavia as the *kolo*, or "wheel," usually accompanied by the music of the native *tamburica*. Hitler's efforts to recapture Croatia into the German sphere of influence are reminiscent of an earlier cycle in the region's history, when Napoleon in 1806 included it in an Illyrian state of pro-French sympathies, but Austria-Hungary recovered it by 1822 (Bulletin No. 1).

HOW TEACHERS MAY OBTAIN THE BULLETINS

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General Headquarters, Washington, D. C.

Croatia a Vital Region of Yugoslavia

UNTIL the region received worldwide attention early this month as a factor determining Yugoslavia's wartime strength, Croatia for some time had not been widely discussed beyond its own frontiers. Yet the region is a significant element in the patchwork pattern of the Balkan nation now battling Germany.

The bulk of the banovina, or province, of Croatia lies in northwest Yugoslavia. Together with the adjoining but distinct region of Slovenia, farther north and west, it faces Germany's Austria and Axis-member Hungary across boundaries that offered little in the way of natural defense positions when invasion began.

Received New Autonomous Status

Before the establishment of the united kingdom of the Serbs, Croats, and Slovenes in post-World War settlements, Croatia, with its eastern section Slavonia (not to be confused with the separate region of Slovenia), was part of the old Austro-Hungarian Empire. Under Yugoslav government, this region became for a while the province of Hrvatska (illustrations, cover and inside cover).

About the time of the outbreak of the present war, the Hrvatskan area, enlarged by the coastal strip of Dalmatia and the former region of Hercegovina, received a new status in the national set-up. It became the autonomous state of Croatia, its capital at Zagreb (illustration, next page) empowered to handle local matters. The national government retained control of foreign relations, international trade, defense, communications, and religion, as well as policies of general interest in education and commerce.

Although the Croats voluntarily joined the Yugloslav union, which included pre-World War Serbia, Montenegro, Hercegovina, and neighboring Austro-Hungarian provinces, they have engaged from time to time in strong separatist movements, born of both domestic and foreign economic and political problems.

As early as 1919 this feeling led to the proclamation of a short-lived Croatian republic. From 1920 until 1924, elected Croatian delegates failed to participate in the national government. When they joined later in parliamentary activities, disputes within the legislative halls grew so violent that on one occasion shots were fired, resulting in the immediate death of two Croatian delegates and the wounding of others, including the Peasant Party leader who later died.

Later, Croats took their place in the national cabinet, and in the recent crisis they joined the government in forming its united front against Axis invaders.

Rich Country, Open to Attack

Autonomous Croatia, as now organized, covers an area of more than 25,000 square miles, and holds between four and five million people. These figures represent something over a quarter of Yugoslavia's entire area and population. Of the inhabitants, more than 3,000,000 are Croats, some 800,000 are Serbs, and the rest are classed in smaller minorities, such as Moslems, Germans, and Italians.

Zagreb, second city of Yugoslavia, with a population of about 280,000, is little more than 50 air miles from Austria on the north and Hungary on the east.

Stretching eastward from the Adriatic, Croatia slopes gradually from the high mountain districts of the coast to the transitional hilly country and thence to the open plains and valleys of the meandering rivers Drava and Sava. On the Hungarian side, particularly, access into this part of Yugoslavia is by way of flat, largely unobstructed terrain.

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Photograph by Erno Vadas

CROATIA FINDS NATIONAL EXPRESSION WITHIN SHELL OF FOREIGN INFLUENCE

A modern Croatian artist, Ivan Mestrović, created the 50-foot bronze statue of the historic Croatian religious leader, Gregory Ninsky, in the renovated 3rd-century palace of an ancient Roman emperor, Diocletian. Although the emperor was one of many rulers exerting Italian authority over Croatia, he was a native of Split (Spalato), on the Adriatic coast of Yugoslavia, where he built for his old age the elaborate palace shown in the photograph. The internationally famous sculptor, Mestrović, born in the eastern part of Croatia, or Slavonia, worked in London during the World War for Yugoslav independence (Bulletin No. 1).

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Hitler's Territory Fails To Equal Napoleon's Conquests

DESPITE the conquests in rapid succession, both military and diplomatic, engineered by Hitler, the area he controls falls far short of the expanse of Europe held by Napoleon at the height of his power.

Napoleon's Europe in 1812 measured 1,134,000 square miles. Hitler's Europe, the area occupied by German troops or allied to Germany by the Axis pact at the beginning of this month, covers about 928,000 square miles. Thus the Little Corporal of France leads the Nazi dictator by some 206,000 square miles, an area considerably larger than Spain (for comparison, see maps, next page).

Even if Yugoslavia had stayed strictly in the Nazi camp, the German-dominated territories would have failed to measure up to those of Napoleon.

Similarities Between Napoleonic and Nazi Empires

Populous, the Hitler-and-Axis area of Europe contains about 233,600,000 persons, a number far in excess of the United States population of 131,669,275, although it covers less than a third as much territory.

The principal area which was militarily controlled by Napoleon and is not held by Hitler stretches through Spain, unoccupied France, and Switzerland.

On the other hand, the principal area under control of Hitler but not conquered by Napoleon is made up of present-day Bulgaria and Romania.

A comparison of Hitler's Europe with Napoleon's empire shows many similarities. Among them is the fact that Napoleon, like Hitler, acquired territory both by conquest and by forced alliances. The Little Corporal's Europe was a patchwork of puppet states headed by his friends and relatives.

Napoleon and Hitler Got as Far as English Channel

Both domains reached from the Arctic to the Balkans. Both fell afoul of British sea power. It was a British naval victory in the Mediterranean, under Nelson at Abukir at the mouth of the Nile, that smashed Napoleon's African venture and left his expeditionary force stranded in Egypt.

Napoleon, like Hitler, marshalled his hosts for the invasion of the British Isles, but he never was able to get his deadly armies across that 20-mile moat. His invasion hopes vanished when Nelson destroyed the naval strength of the combined French and Spanish fleets off Trafalgar.

For Napoleon the beginning of the end came when he led his Grand Army against vast Russia—and rode back out of the wintry wastes with only a pitiful, limping remnant.

Conquered peoples were then inspired to rise against him and his weakened forces. With the aid of a continental foothold gained in Portugal and Spain by the British, Napoleon's downfall was achieved at last by a coalition of his enemies.

Between Napoleon's and Hitler's day the methods of warfare have changed so completely as to make comparisons largely futile. In Napoleon's time, for instance, a patriot rising against the invading conqueror needed little more than a musket; today he needs the industries that produce tanks and bombing planes.

Yet, as comparisons emphasize, certain verities of strategy and geography still apply, a century and a quarter after Waterloo. On the east and southeast the Russians, some of the Balkan peoples, and the Turks form a bulwark against Hitler, as they did against Napoleon. In Greece, this time, the British have a foothold on the continent, and British warships still rule the encircling seas.

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This region includes some of Yugoslavia's most productive country. In the far west are found vast forests of oak, beech, ash and elm, forming the basis for an active lumber industry. Some minerals, too, including bauxite, lignite, and oil, are recovered. From the hill, plateau, and plains regions come all kinds of cereals, such as wheat, barley, and oats; fruits, potatoes, hay, honey, dairy products, and livestock, including thoroughbred horses and the prized black, curly-haired pigs.

Note: See also "Kaleidoscopic Land of Europe's Youngest King," *National Geographic Magazine*, June, 1939; "Jugoslavia—Ten Years After," September, 1930; and "Dalmatian Days," January, 1928. And in the GEOGRAPHIC NEWS BULLETINS: "Surrounded Yugoslavia a Victim of Geographic Position," March 24, 1941; "Yugoslavia, An Amalgam of Nations and Peoples," October 28, 1940; "Croatia: Yugoslavian Hinge of Balkan Politics," April 15, 1940; "Belgrade, Where Balkan Leaders Sought Continued Peace," February 19, 1940; and "Yugoslavia Is Best Known, Least Understood of Balkans," May 8, 1939.

The autonomous Croatian state may be located on The Society's map of Europe and the Near East, priced at 50¢ (paper) and 75¢ (linen).

Bulletin No. 1, April 21, 1941.

Photograph by Melville Chater

CROATIA'S NEW CAPITAL REMEMBERS TATAR INVASION 700 YEARS AGO

The city of Zagreb, when Croatia received autonomy in 1939, was made the administrative center for local affairs, like a State capital in the U. S. Modern independence and the eight centuries of foreign rule are both symbolized in St. Mark's church, where the city's coat of arms (right) and the province's (left) appear in colorful tile mosaic on the roof. The Gothic structure itself, however, is a reminder of Hungary's King Bela IV, the ruler who rebuilt church and city after the ravages of a Tatar invasion in the 13th century.

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Strategic Materials: No. 3, Tungsten "Can Take It"

FINDING a gold mine would have been less important to the United States than the recent discovery in Valley County, Idaho, of tungsten deposits. For tungsten is essential to national defense, while gold is not; yet the volume of tungsten ore mined within the nation's boundaries in the latest statistical year was less than one-four-thousandth the gold ore output.

To many Americans, tungsten is merely an unfamiliar metal with an unfamiliar name of Swedish origin, meaning vaguely "heavy stone." But a shortage of it would be felt by everyone who turns on an electric light or listens to a radio, plays a piano or winds a watch, or is sick enough to need X-ray photographs or treatment.

This hard and stubborn metal, little used until the beginning of the 20th century, is in some ways the toughest of them all. It makes the hardest cutting tool known, except a diamond.

Since tungsten has the highest melting point of any metallic material, it can glow longest at white heat without burning out. Therefore it serves a vital everyday function in electric bulbs as the glowing wire which in recent years has replaced carbon (illustration, next page).

Important Uses in Average Home

Possibly a penny's worth of tungsten supplies enough filaments to light an average home, but no efficient substitute is manufactured at any price. Less than 2 per cent of the country's consumption of the metal goes into electric bulbs, but this small fraction would be most quickly missed.

Tungsten filaments are vital parts also of radio tubes. In razor blades, watch springs, and piano sounding boards the average citizen encounters more tungsten. X-ray equipment makes use of small quantities of the metal as the cathode, or anvil, on which the piercing rays strike. In certain electrical and telephone apparatus tungsten forms the metal points of electrical contact.

The same qualities which make the metal useful in the home—its endurance of heat and its ability to retain a cutting edge—place it in great demand for heavy industry, especially during the production drive for national defense. It has a special military use in bullet-cores for armor-piercing projectiles, and in armor-plate which other metals may not be able to penetrate.

Tungsten plays its leading role in the steel industry, as an alloy in special steels which are not only harder under ordinary circumstances but even retain their hardness under the strain and heat of high-speed operations. For some purposes,

Strategic materials, according to official definition, are "those essential to national defense, for the supply of which, in war, dependence must be placed in whole, or in substantial part, on sources outside the continental limits of the United States; and for which strict conservation and distribution control measures will be necessary."

The GEOGRAPHIC NEWS BULLETINS are presenting a series of articles on the following strategic materials, describing their uses, qualities, and sources:

Antimony	*Mercury*	*Quinine (No. 2)*
Chromium	*Mica*	*Rubber*
Coconut Shell Char	*Nickel (No. 1)*	*Silk*
Manganese	*Quartz Crystal*	*Tin*
Manila Fiber		*Tungsten (No. 3)*

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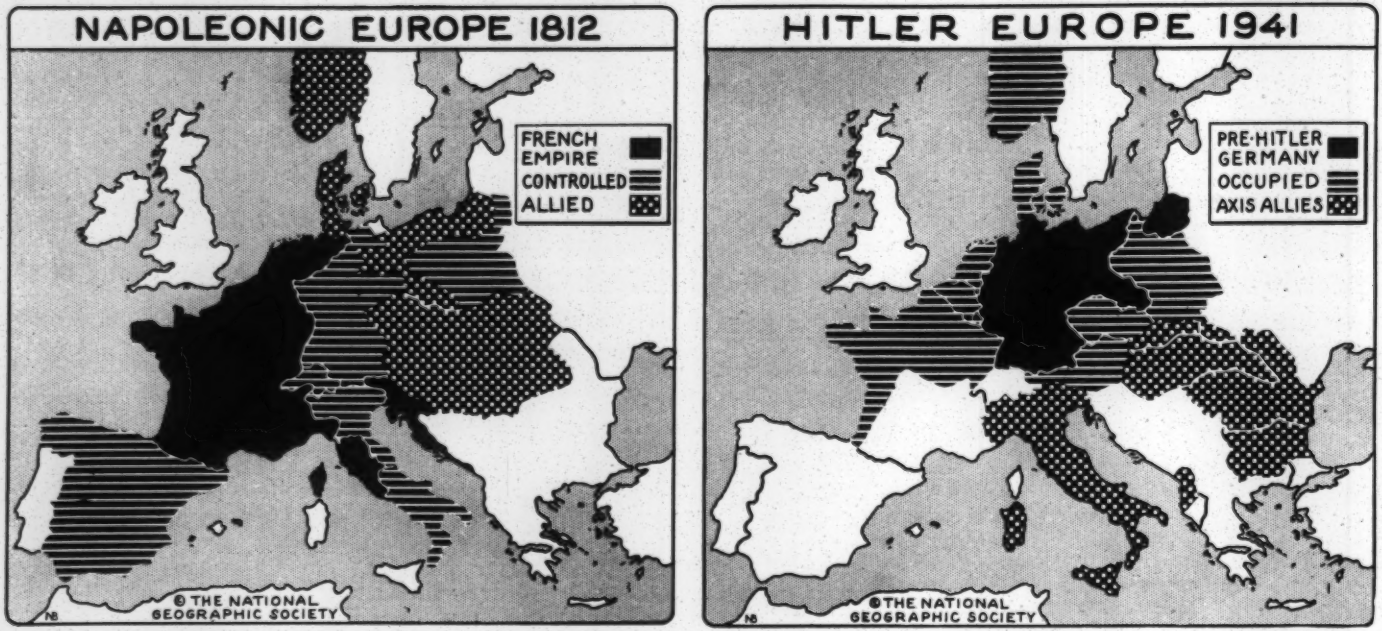

NAPOLEON'S 1,134,000 SQUARE MILES VS. HITLER'S 928,000 SQUARE MILES LEAVES THE LITTLE CORPORAL AHEAD

These maps show that the European area controlled by Adolf Hitler and his Axis allies, at the beginning of this month, is smaller than the territory held by Napoleon and allies of the French Empire in 1812. In addition to the regions acquired by conquest, it will be apparent from the maps that both Hitler and Napoleon extended their power by forced alliances. Napoleon made his brother Joseph the king of Spain and brother Jerome king of Westphalia, thus cementing those areas to the French Empire. Hitler, with Bulgaria and Romania adhering to the Axis, holds an extensive Balkan territory, however, that Napoleon never won. The Little Corporal's chief Balkan triumph was the small Illyrian state he carved out of what is now the territory mainly of Yugoslavia (shown in black across the Adriatic from Italy), ruled by his friend General Bertrand.

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Addis Ababa Sees Swift Changes in Past Decade

THE FALL of Diredawa to the British recently removed the last big Italian stronghold between the spearhead of Britain's Ethiopian campaign and the capital, Addis Ababa. The Addis Ababa-Djibouti Railway, only rail link between interior Ethiopia and the outside world, connects Diredawa with the capital, some 200 miles away. The fall of the latter, therefore, was a foregone conclusion.

The confusion reported in Addis Ababa in consequence of the British capture brought one more disturbance to the formerly peaceful, remote, and primitive African community, 8,000 feet high in the heart of a little-traveled land of roving wild beasts and warlike tribes.

Streets Were Renamed for Italians

Among the world headline events of recent years chronicled in this once-isolated spot were the spectacular coronation in 1930 of Haile Selassie, King of Kings and Lion of Judah, as Emperor of Ethiopia; the Italian conquest of the city in the spring of 1936; and now the exodus of Italian settlers before the advancing forces of the British and the returned Ethiopian monarch.

Many changes have taken place in Addis Ababa during the five-year period of Italian occupation. Streets were renamed for prominent Italians: for example, the avenues of Mussolini, the Princess of Piedmont, the Dukes of Aosta and Abruzzi, Queen Elena, and Vittorio Emanuele III Re e Imperatore (King and Emperor). Other thoroughfares were given the names of towns in Italian colonies, such as Bengasi (Libia), Asmara (Eritrea), and Mogadiscio (Italian Somaliland). One square became "The Fifth of May," in commemoration of the date of the city's fall to Italian troops, in the Italo-Ethiopian war of 1935-36.

According to reports of visitors since the advent of the Italians, all the native monuments have disappeared, including the statues of the Lion of Judah and of Menelik II, former king of Ethiopia, which were shipped to Rome.

Established as the capital of the entire empire of Italian East Africa, Addis Ababa had grown to a population approaching 100,000 permanent inhabitants, by the census of March, 1938. More than 17,000 were Italians.

Hotels Planned for Tourist Trade

To the old, sprawling, tree-lined city, with its outlying camps, its small native huts, market places, Greek, Armenian, and East Indian shops, the Italian colonists were adding at the outbreak of the war some modern public buildings, European houses, small restaurants, general stores, motion picture theaters, and hotels, planned for an expected peacetime trade.

The diplomatic quarters of foreign representatives, even before the Italian conquest, were located outside the city. In their spacious grounds and gardens, lavishly colored and perfumed shrubs and flowers recalled the fact that the name Addis Ababa means "New Flower." At present the United States has no representative there, the American official having been withdrawn after the Italian conquest.

Describing the coronation of Emperor Haile Selassie in Addis Ababa's Cathedral of St. George, 11 years ago, the American Minister then assigned to Ethiopia wrote in the *National Geographic Magazine:*

"For five hours we witness the unfolding of the ancient and traditional

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therefore, steel may consist of as much as 20 per cent tungsten. Such steel produces valves for internal combustion engines, and the dies through which other metals are drawn into wire. Its quality of retaining a hard, sharp edge in spite of heat and friction makes it desirable for files and saws, as well as for the blades which cut other metals being processed at high temperatures.

Knowing how writing would be slowed if pencils had to be sharpened after every word, anyone can realize the economy of a cutting tool which does not require constant re-edging. Tungsten carbide, treated by a special process, makes tools that go without sharpening for 25 to 100 times longer than others.

The United States has not yet produced more than about half enough tungsten for its own needs. China began to mine the metal during the World War; since 1918 its production has led all other countries and has averaged about 46 per cent of the world's total. Burma ordinarily has ranked second to China as a tungsten producer, but increased output may be bringing the United States into second place. Portugal is the leading European producer, and Bolivia leads in South America.

The chief tungsten ore is wolframite, in which the metal is mixed with iron and manganese.

Bulletin No. 3, April 21, 1941.

Courtesy Westinghouse Lamp Co.

TINY TUNGSTEN "TORCHES" LIGHT ALL ELECTRIC BULBS

Because it has the highest melting point of all metals, tungsten is made into the delicate wire filament which glows white-hot in every modern electric light bulb (as distinguished from fluorescent lighting). Tungsten wire for bulbs is drawn through diamond dies until it is reduced to the diameter of .0004 of an inch, a fraction of hair-size, and coiled into spirals. In a bulb factory, images of the wire coils, magnified 100 times, are projected on a ground-glass screen and inspected. Only about half the tungsten consumed in the U. S. is of American origin, principally from Idaho, Nevada, California, and Colorado.

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Great-Grandfather Geographies

FROM THE beginning of the United States, geography has been an important silent partner in education's famous "three-R's" combine of Reading, Writing, and 'Rithmetic, Inc. The first American geography textbook followed the American Revolution so closely that it preceded the Constitution. It is not surprising, therefore, that of some two score old American geography textbooks exhibited in the National Geographic Society's Washington, D. C., headquarters, about half are more than a century old. The textbook exhibit is current in The Society's Hubbard Memorial Library.

Geography Made Easy, a diminutive calf-bound volume smaller than a man's hand, was modestly published in New Haven, Conn., in 1784, because a conscientious schoolmaster only one year out of college, Jedidiah Morse, found English geographies out of date for instructing his pupils about the young United States. This first geography text published in the new nation, a midget pioneer, contained two tiny maps no larger than a dollar bill and no pictures.

Webster Went from Geography to Dictionary

The success of *Geography Made Easy* encouraged the author, later the Rev. Dr. Morse, to bring out in 1789 his *American Geography*, a fat octavo devoted mainly to the United States; its publication was held up until eleven States had ratified the Constitution. He prefaced the new book with the patriotic hope that "our youth, of both sexes, might imbibe an acquaintance with their country, and an attachment to its interests." To that end, he was generous with descriptions of such natural wonders as Niagara Falls, between prophecies of America's brilliant future, then chatted about dueling in New England, feeding habits of alligators, Quakers, and a wide variety of other subjects. Revisions of the Rev. Dr. Morse's trail-breaking geographies, prepared with the help of his son, continued to appear for 40 years. The earliest in the collection exhibited is a 1790 second edition.

Hoping that geography would be more popular if books were cheaper and easier to understand, in 1795 Nathaniel Dwight published a terse little geographic catechism, *Short But Comprehensive System of Geography of the World By Way of Question and Answer*. His new method fostered the grab-bag geography which prevailed for decades: pupils memorized bits of information, and, at the teacher's question, groped in their memory to pull out a matching scrap.

Noah Webster, Jr., whose century-old dictionary effort is still standard, in 1802 devoted Vol. I of his *Elements of Useful Knowledge* to geography, wherever possible "deducing moral and pious reflections from the subjects treated."

Women Were Early in Geography Field

On the post-Revolutionary wave of patriotism which replaced English texts with home-written American books, many geography teachers rode to authorship. Like the Rev. Morse, they published material prepared originally for their own classrooms. Hamilton's *Descriptive Geography of Europe* (1837) acknowledges on the title page that it was "arranged for the Use of Mr. and Mrs. Hamilton's Seminary for Young Ladies, Baltimore." A similar venture is *The Tyro's Assistant, or Clavis Geographica* (1819). This text is virtually a verbal map, detailing with deadly monotony which countries bound which, but mentioning little else.

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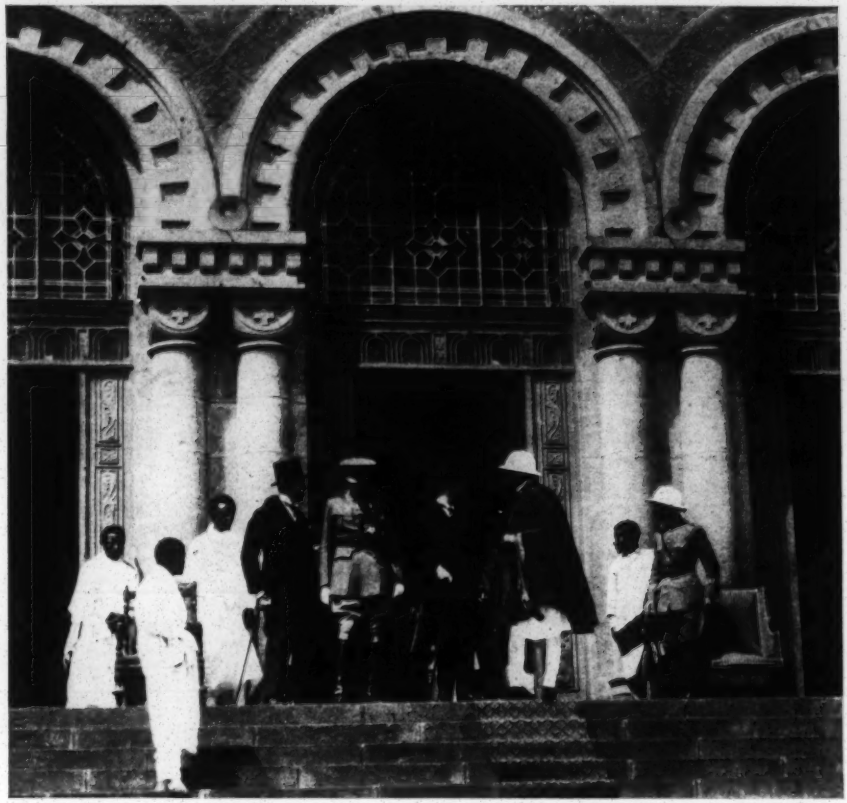
Hebraic-Christian ceremony of the crowning of a ruler of the Empire of Ethiopia. . . . The Emperor, whose name may be Anglicized as 'Power of the Trinity,' is vested first with his sword of gold studded with precious stones. . . . Bestowals of the imperial scepter of ivory and gold and a golden globe of the earth follow. The diamond-incrusted ring, the two traditional lances filigreed in gold, and the imperial vestments are all bestowed in turn with appropriate and lengthy ceremony. Seventh and last comes the magnificent crown. . . . Shortly after noon the cannons boom. There is the fanfare of a thousand trumpets. The triumphant ululation of tens of thousands of waiting women is released in waves over the city of the 'New Flower.' "

Note: Additional illustrations and descriptions of Addis Ababa will be found in "Life's Tenor in Ethiopia," *National Geographic Magazine*, June, 1935; "Coronation Days in Addis Ababa," June, 1931; and "A Caravan Journey Through Abyssinia," June, 1925.

Addis Ababa may be located on the map of the Indian Ocean priced at 50¢ (paper) and 75¢ (linen). A folder describing this and other maps published by the National Geographic Society will be sent upon request.

Bulletin No. 4, April 21, 1941.



Photograph by W. Robert Moore

MENELIK II MADE ADDIS ABABA ETHIOPIA'S FIRST PERMANENT CAPITAL

The grand-uncle of Haile Selassie, Menelik II, gave his independent African nation a permanent capital by importing eucalyptus trees. Previously, whenever the supply of wood was exhausted around a capital city, the royal court would move on to another site. The rapidly growing eucalyptus trees planted around Addis Ababa, however, yield a constant timber supply. The group of American diplomats specially sent to the Ethiopian capital for Haile Selassie's coronation in 1930 followed the practice of placing a wreath on Menelik's tomb; they were photographed leaving the handsome mausoleum in which he is buried.

The U. S. was then bounded "on the west by the Spanish Provinces and unexplored Forests, or perhaps the Pacific Ocean."

All the early geographies were small, usually duodecimos, such as Hubbard's *Rudiments of Geography;* on pages barely larger than a postcard, it offers a "Concise Description of the Various Kingdoms, States, Empires, Countries, and Islands of the World." Some of the texts were hastily and frankly borrowed from English predecessors, as J. A. Cummings' *Introduction to Modern and Ancient Geography, on the Plan of Goldsmith and Guy* (1813).

Joseph E. Worcester, a dictionary-making rival of Webster, typified a new textbook trend in the woodcuts illustrating his *Elements of Geography* (1818)—views of cities, a picture of a breadfruit tree, or a portrait of a kangaroo.

Among these vest-pocket-size great-grandparents of the later jumbo geographies, big enough to eat an apple behind, appeared Picket's *Geographical Grammar* in 1816, half as thick but twice as wide as its miniature predecessors. This pioneer omnibus geography contains a section of concise facts printed two columns to the page, a set of questions, some pages of problems, and 7 folded maps bound with the text. A typical problem involved calculating "how high the sun is above the horizon at 7 in the evening, on the 4th of June, at London."

The general practice for the next 30 years remained, however, to print small texts and separate atlases of large companion maps. Hart's prayer-book-size *Geographical Exercises Containing 10,000 Questions* (1830) is accompanied by a full-size atlas of hand-colored maps.

The first woman to leave an impression on American geographies was Mrs. Emma Willard, who popularized her system of teaching by visual "comparison and classification." She collaborated with Dr. W. C. Woodbridge on *Universal Geography,* and set an example for Harriet Beecher Stowe, who later wrote a geography while limbering up for *Uncle Tom's Cabin.*

Geographies broke into the textbook best-seller class with a series by Jesse Olney, whose works went through 98 editions. Other early writers of series of graded geographies were S. S. Cornell, S. Augustus Mitchell, and James Monteith. Accompanying these numerous texts appeared books of questions as study guides, such as R. A. Parker's and David Pierson's. Parker's *Questions in Geography,* in 1847, was adapted for use with any of nine different standard geography texts. Pierson's book contained numbered questions, some as laconic as this query about West Virginia: "What is said of this state?"

The author of 84 school books, Samuel Goodrich in 1829 inaugurated his popular Peter Parley series. His *Geography for Beginners* is enlivened with sprightly woodcuts; Lesson XIX is a "Review in Rhyme." Nathaniel Hawthorne edited one of the Peter Parley books for him.

As a memory aid to students, poetical geographies were in vogue, to be chanted or even sung to familiar tunes. Van Waters' *Poetical Geography* (1851) offered topographic data, sugar-coated in frequently questionable rhyme (with rivers italicized):

> Of Maryland's towns, the first is Baltimore
> Near Chesapeake, upon *Pa-tap-sco's* shore.
> And west from Baltimore, miles forty-two,
> Has Fredericktown *Mo-noc-a-cy* in view.

Published in Richmond in 1864, at the height of the Civil War, the Rev. K. J. Stewart's *Geography for Beginners* is typical of the textbooks written hastily for a belligerent South. It has a special section on the history, productions, flora, scenery, fauna, and manufactures of the Confederate States, and a prayer for victory.

Arnold Guyot, Swiss professor, and Matthew Fontaine Maury, founder of the U. S. Naval Observatory, after the close of the Civil War published geographies which turned the textbook trend away from assorted novelties and remarks, toward scientific fact.